

ABSTRACT

Novel Copolymers and Films thereof

Novel copolymers comprise ethylene and alpha olefins having from 3 to 10 carbon atoms and which have

- (a) a density in the range 0.900 to 0.940
- (b) M_w/M_n of 2 - 3.4
- (c) I_{21}/I_2 from 16 to 24
- (d) activation energy of flow from 28 to 45 kJ/mol
- (e) a ratio $E_a(\text{HMW})/E_a(\text{LMW}) > 1.1$, and
- (f) a ratio $g'(\text{HMW})/g'(\text{LMW})$ from 0.85 to 0.95

The copolymers are particularly useful in film applications showing an excellent balance of processing, optical and mechanical properties. The novel polymers may suitably be prepared in the gas phase in the presence of metallocene complexes.